

H. Thomas Fridirici
PADEP
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110-8200

ARCADIS G&M, Inc.
6 Terry Drive
Suite 300
Newtown
Pennsylvania 18940
Tel 267 685-1800
Fax 267 685-1801

Subject

Pre-Drilling Plan Addendum
Proposed [REDACTED] Water Supply Well,
Bally Groundwater Contamination Superfund Site,
Bally Borough, Berks County, Pennsylvania

ARCADIS Project No
NP000597.0002.0005B

Environmental

Date
10 May 2005

Contact
Michael Bedard

Dear Mr. Fridirici:

ARCADIS is writing you with the dual purposes of informing you of a change in the proposed location for a new Municipal Supply Well for the Borough of Bally (Borough) and addressing the questions and comments set forth in your 23, February 2004 letter to ARCADIS regarding the proposed Bally Municipal Supply Well. This letter incorporates by reference the document "Pre-Drilling Plan for Potential Installation of Municipal Supply Well" (PDP) issued by ARCADIS on 23, June 2003 and the points included in your comment letter.

Extension
(267) 685-1800

New Proposed Well Location

Due to access issues, the area being considered for the potential location of a new municipal supply well has been expanded to include areas that, for logistical reasons, were not previously considered. This expansion has led ARCADIS to a new potential well location within the Leithsville Formation northeast of the Borough. This is an area very near to some other locations identified in the 2003 PDP where access difficulties were encountered.

The general vicinity and geology of this location was also identified as being acceptable to PADEP during a previous field meeting during which representatives from the Borough, EPA and PADEP were present. Thus, ARCADIS believes that this location should be acceptable to all involved parties. The Borough has already been involved in the access discussions and appears to be satisfied with the proposed location.

AR300314

ARCADIS

This letter provides information regarding the new proposed well location and the proposed monitoring network designed to meet the requirements for a final aquifer pumping test at the new proposed well site and assumes that reasonable access will be available for Sunbeam Products, Inc. to the new proposed well site and potential monitoring locations.

The PDP submitted to PADEP in June of 2003 provides an adequate discussion of the project purpose, site background, setting, geology, target aquifers and proposed well construction. This addendum to the PDP serves to provide an update with respect to the new proposed well location and changes to the observation network pending the installation of a satisfactorily productive well.

The proposed new well location is located approximately one half mile to the northeast of the Borough boundary slightly to the northwest of Pennsylvania State Route 100. The proposed location is shown on attached **Figure 1**, on which it is apparent that the land use at this location is agricultural. **Figure 2** presents a geologic map of the proposed well location.

The subject location (and backup locations) is located near the foot of a wooded hill of generally uniform slope. The crest of the hill and the topographic divide is located approximately 2000 feet to the northwest of the subject location. This hill crest represents the edge of the contributing surface drainage area for the proposed well in the above direction. The breadth of the surface drainage area is influenced by both the topography and the hydraulic influence of the proposed well as will be observed during the pumping test for the proposed well. As this location is quite rural, no significant threats to the surface water recharge for this location are anticipated.

In the event the above described location does not result in a well that meets the project design yield, or in the event the ongoing bog turtle study of adjacent wetlands indicates encroachment of the Zone 1 Wellhead Protection Area, three alternative backup locations have been predetermined and are shown on Figure 1. The next preferred location is in the northwest corner of the property, with a third location in the northeast corner. A fourth potential location is also shown on Figure 1. All backup locations correspond to inferred fractures.

Test and Observation Well Construction

ARCADIS has previously described the planned pumping well construction details in the Pre-Drilling Plan (PDP) submitted to PADEP in June of 2003. The PDP was approved by the PADEP in July of 2003. However, for clarity, ARCADIS will reiterate the details of the well construction here.

A **test** borehole will be completed to a target depth range of 300 to 400 feet below **land** surface (bls). The well will be drilled using an air rotary drill rig following the **A100** standards set forth by the American Water Well Association (AWWA). The **test** borehole will be drilled at a six to eight inch nominal diameter to evaluate aquifer **yield** relative to the project design yield. Temporary steel casing may be used to **prevent** formation caving while the borehole is advanced to depth.

In **the** event the yield of the test borehole will meet the project design yield, ARCADIS will move to the next phase of the project of completing the test well as a **properly** cased production well and performing a long-term pumping test. The **other** locations will be drilled, as need be, as outlined above, until a suitable water bearing test **well** is attained and the project can move to the aquifer testing phase. Details of final well completion and testing will be forwarded following test well drilling and prior to well reconstruction and testing.

Depending upon the ability or inability to obtain access to measure water levels in existing wells at nearby properties, and up to three additional boreholes may be installed as observation wells for the long-term pumping test. Observation wells will be constructed similar to the final production well. Observation wells may be located on **and** off site. Final locations will be transmitted in the aquifer testing update mentioned above. If the primary location and one or more of the backup locations are **test** drilled, but yield less than desired, these wells will be incorporated into the observation well network. Consideration will be given to installing a observation point near the unnamed tributary to evaluate impacts to surface water. Lastly, a **direct** push well point cluster will be installed in the wetlands to monitor for impacts to **surface** water in this part of the site.

In **terms** of potential off site observation wells, one well will likely be located approximately half way between the test well and Municipal Well 1. In addition to drilled observation wells, a select set of the existing Bally Groundwater Contamination Site monitoring wells (monitoring wells 87-71 and potentially one other) will be monitored during any aquifer test along with potentially the Bally Ribbon Mill (BRM) well.

Summary

ARCADIS believes that this drilling plan is adequate and flexible enough to establish a **final** production well or wells, suitable for performance of a pumping test and **replacement** of the existing water supply well.

ARCADIS

Thomas Fridirici
May 10, 2005

Please do not hesitate to provide us your comments or approval of the plan outlined above as soon as conveniently possible.

Sincerely,

ARCADIS G&M, Inc.

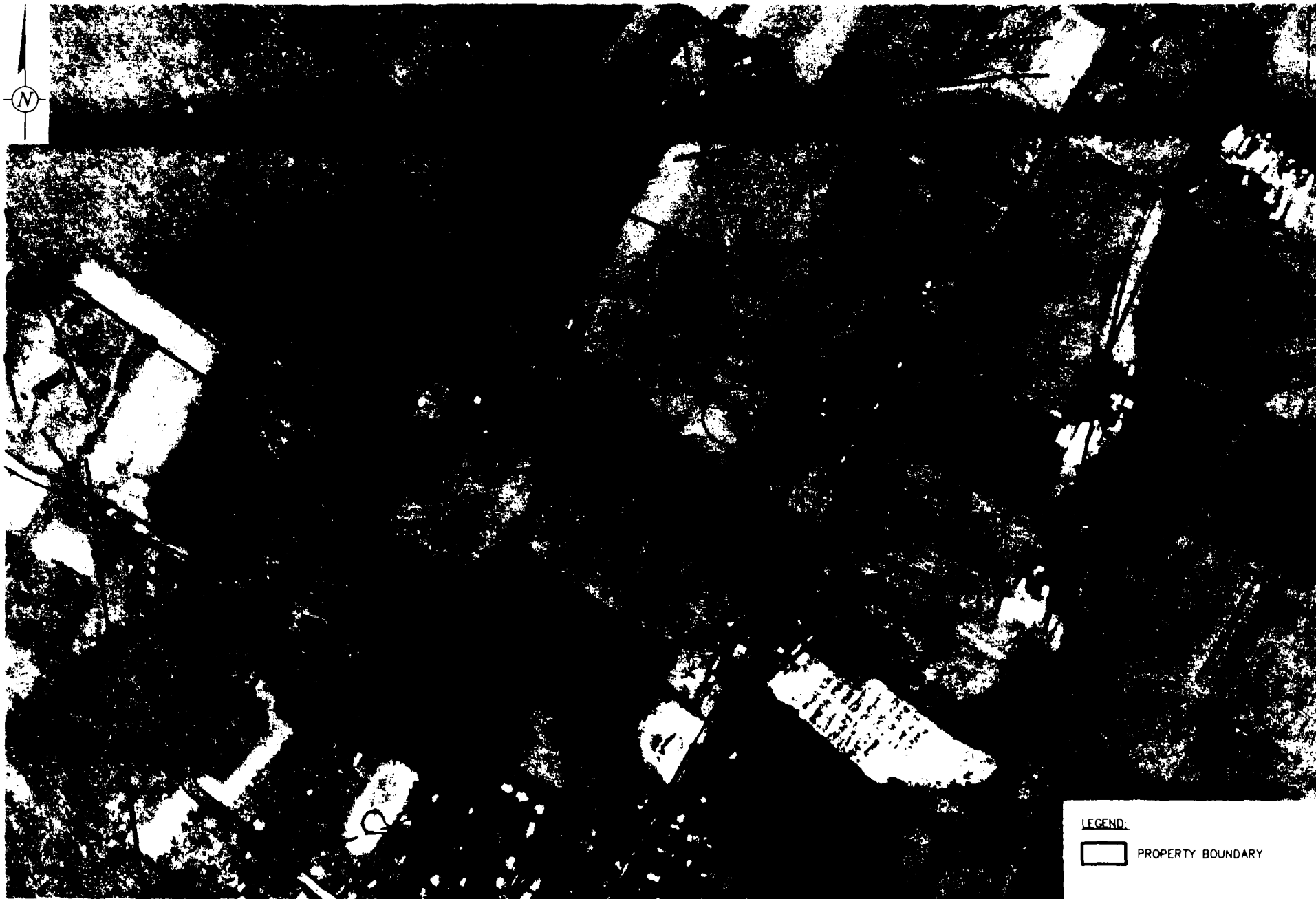


Michael F. Bedard, P.E.
Project Manager

Attachments

Copies

Tom Grub, PADEP
Mitch Cron, USEPA
Toni Hemerka, Bally Borough
Greg Unger, Systems Design Engineering, Inc.
Lorelei Borland, American Household, Inc.
Chris Akins, Sunbeam Products, Inc.
Chris Ann Gahagan, Sunbeam Products, Inc.



LEGEND:

 PROPERTY BOUNDARY

0 600
SCALE: 1"=600'

AR300318

ARCADIS



DRAWN
M. WASILEWSKI

DATE
1/25/05

PROJECT MANAGER
M. BEDARD

DEPARTMENT MANAGER
A. ROBINSON

EXHIBIT A
PROPOSED WATER SUPPLY WELL
LOCATIONS

LEAD DESIGN PROF.
F. LENZO

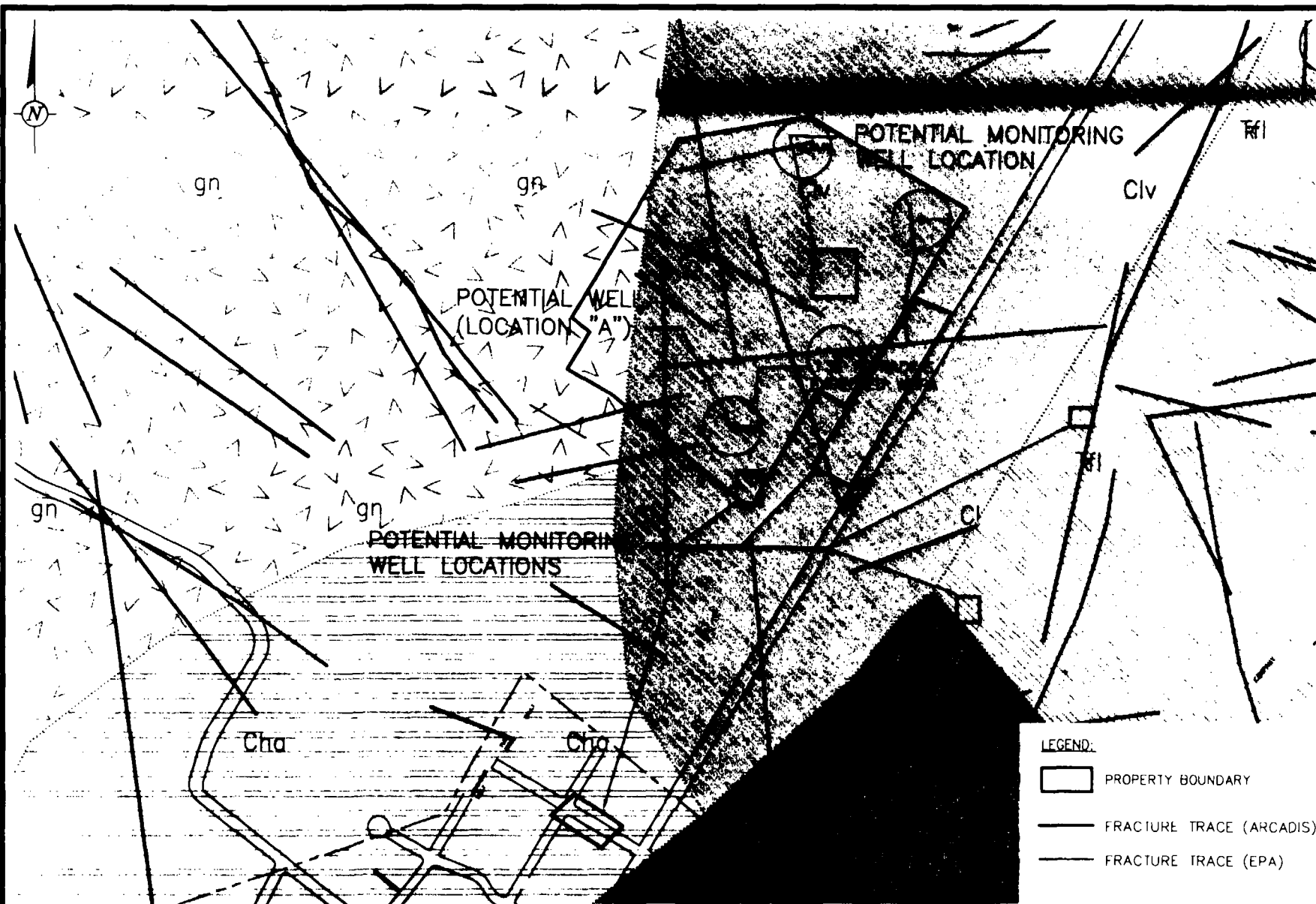
CHECKED
D. MCCARTHY

PROJECT NUMBER
NP000597.002

DRAWING NUMBER
1

AR300319

G:\PROJECT\AH Barto, PA\CAD\PPA\FIG-2 Geologic_map.dwg May 06 2005 LAYOUT: SHUHLER-GEOLOGY



0 600
SCALE: 1"=600'

ARCADIS



DRAWN M. WASILEWSKI	DATE 4/08/04	PROJECT MANAGER M. BIEDARD	DEPARTMENT MANAGER M. BIEDARD
GEOLOGIC MAP 1736 RTE 100 BARTO, PA 19504		LEAD DESIGN PROF F. LENZO	CHECKED CTS
		PROJECT NUMBER NP000597.002	DRAWING NUMBER 2